

REMARKS

Claims 3-14 and 16-26 are pending in the application. Claims 3 and 4 are independent claims.

Claims 3-14 and 16-26 are rejected under 35 U.S.C. 103 as being unpatentable over USP 4759805 to Saruwatari et al., FR 2100817, USP 3,730,783 to Streel, USP 3,255,035 to Clough, or AN 115:237352 in view of McGannon (The Making, Shaping and Treating of Steel, United States Steel). The rejection is respectfully traversed in light of the proposed amendments and accompanying remarks.

Claims 3 and 4 are amended to clarify that the object is a solid object of an analytical test element. Claims 3 and 4 each further require that "the resulting deposited layer is solid and more hydrophilic than the surface of the solid object". Support for the amendments are found in the specification at page 6, second paragraph and page 11, first paragraph. No new matter is added by virtue of the amendments.

It is submitted that none of the cited references either alone or in combination with one another disclose or suggest an analytical test element, let alone the use of a surface coating to increase the surface tension of at least one solid object of an analytical test element. Further, none of the cited references disclose or suggest a solid deposited layer that is more hydrophilic than the surface of the solid object, as required by the claims 3 and 4.

The Examiner's statement that Saruwatari et al., FR 2100817, Streel, Clough, and AN 115:237352 "do not set forth to increase the surface tension of an object by the oxide coating", is acknowledged. See, pages 2 and 3 of Paper No. 13. At most, Saruwatari et al. discloses an aluminum conductor in which an audible noise caused by corona discharges is reduced to a minimum (Col. 1 lines 65-67); FR 2100817 discloses a process for preparing an aluminum-coated steel sheet; Streel discloses a process for treating a coating of aluminum deposited on a metal support (Col. 1 lines 32-34); Clough discloses a tin coated product to provide a laminated thread with resistance to alkaline dyes (Col. 3 lines 12-16); and AN 115:237352 discloses an oxide coating that eliminates the need for chromate or other chem. conversion coating processes.

Accordingly, Saruwatari et al., FR 2100817, Streel, Clough, and AN 115:237352 either alone or in combination with one another fail to disclose or suggest a use of a

surface coating to increase the surface tension of at least one solid object of an analytical test element comprising a step of "applying boiling water or water vapour on the deposited layer, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object", as required by amended claim 3. Also, none of these references alone or in combination with one another disclose or suggest a use of a surface coating to increase the surface tension of at least one solid object of an analytical test element comprising a step of "applying superheated water vapour to the deposited layer, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object", as required by amended claim 4.

The rejection cites McGannon "to show oxide would create tension on the substrate surface". See, page 3, last paragraph of Paper No. 13. Again, it is noted that claims 3 and 4 have been amended to recite that the object is solid and of an analytical test element. It is submitted that in light of the amendments to the claims, it becomes apparent that McGannon is neither in the field of the claimed endeavor nor is it reasonably pertinent to the specific problem with which the inventors were involved. As such, the McGannon reference would not have been available to the inventor at the time the invention was made.

First, it is submitted that the McGannon reference has nothing at all to do with analytical elements and the hydrophilic nature of its objects. McGannon instead deals with the making, shaping and treating of steel. Further, McGannon does not contemplate the increasing of a surface tension of a solid object, but instead addresses "surface tensions of some liquid metals and some slags". See, p. 317, column 1, fourth paragraph. The Examiner's attention is directed to the temperatures given in the figure legends of McGannon. All of the legends of McGannon disclose surface tensions that have been determined at elevated temperatures with molten materials (fig. 12-109, 1570°C; fig. 12-110, 1400°C; fig. 12-111, 1300-1600°C; fig. 12-112, 1500°C, fig. 12-113 silicate melts, and fig. 12-114 liquid iron).

Accordingly, it is submitted that the making, shaping, and treating of steel at elevated temperatures is not the same field of endeavor as using a surface coating to increase the surface tension of at least one solid object of an analytical test element

whereby a resulting deposited layer of the coating is solid and more hydrophilic than the surface of the solid object, as recited independently in amended claims 3 and 4.

Second, it is submitted that McGannon fails to contemplate, let alone suggest an answer to the problem to which the claims pertain. Claims 3 and 4 each relate to increasing the surface tension of at least one solid object of an analytical device, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object.

McGannon neither discloses nor suggest the existence of an analytical element, let alone any problem associated with the hydrophilic nature of its objects. Instead, McGannon addresses metallurgical problems where "some knowledge of the surface tensions of liquid metals, slags and refractory oxides are needed". See, p. 317, column 1, fourth paragraph. The Examiner's attention is again directed to the above-recited temperatures. One skilled in the art of analytical devices would not be led to turn to the McGannon reference and its disclosure of surface tensions of some liquid metals and some slags to solve issues related to hydrophilic surfaces of analytical devices. Accordingly, it is submitted that the disclosure of McGannon is not in the same field of endeavor, as that required by the amended claims 3 and 4.

However, even if McGannon were considered to be the same field of endeavor as the claimed invention, it is submitted that it fails to cure the inadequacies of Saruwatari et al., FR 2100817, Streel, Clough, and AN 115:237352. Specifically, it is submitted that there is no disclosure or suggestion in McGannon regarding oxides and surface tension on solid objects. Further, McGannon fails to contemplate the hydrophilic nature of a solid layer relative to the solid object on which it is deposited.

As amended, claim 3 requires the steps of "depositing a layer . . . on the surface of the solid object . . . and subsequently applying boiling water or water vapour on the deposited layer, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object. At most, McGannon discloses, "surface tensions of liquid metals, slags and refractory oxides are needed". See, p. 317, column 1, fourth paragraph. One skilled in the art readily appreciates that liquid metals are not solid objects. Further, there is no disclosure or suggestion in McGannon of an analytical device, nor of a solid

deposited layer that is more hydrophilic than the surface of the solid object, as required by claim 3, as amended.

As amended, claim 4 requires the steps of "depositing on the surface a layer . . . and subsequently applying superheated water vapour to the deposited layer, whereby the resulting deposited layer is solid and more hydrophilic than the surface of the solid object." Again, McGannon merely discloses, "surface tensions of liquid metals, slags and refractory oxides are needed". See, p. 317, column 1, fourth paragraph. As stated above, one skilled in the art readily appreciates that liquid metals are not solid objects. Further, there is no disclosure or suggestion in McGannon of an analytical device, nor of a solid deposited layer that is more hydrophilic than the surface of the solid object, as required by claim 4, as amended.

Accordingly, even if McGannon were considered to be analogous art, it is submitted that the differences between the claimed invention and the cited art, either alone or in combination with one another are such that Applicants' invention as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made. It is respectfully contended that the claimed invention meets the test of patentability under 35 U.S.C. 103(a). Entry of the amendments leading to reconsideration of the rejection of the claims and withdrawal of the rejection is respectfully requested.

The claims are believed to be in condition for allowance, and allowance of the application is respectfully requested. It is requested that if necessary, this paper be considered a Petition for Extension of time sufficient to effect a timely response, and that all fees due be charged to Deposit Account Number 50-0877 with reference to (RDID 0041 US).

Respectfully submitted,
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(Date)

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